



Australian Government

Department of Communications,
Information Technology and the Arts

ACHIEVING VALUE FROM ICT: KEY MANAGEMENT STRATEGIES





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About this publication

This booklet is a companion document to the comprehensive research study *Achieving Value from ICT: key management strategies*. It provides a concise and accessible summary of the report's findings and a description of the practices that are key to realising the benefits of ICT.

The report itself was prepared for the Department of Communications, Information Technology and the Arts by Opticon Australia and the Australian National University's National Centre for Information Systems Research. Copies are available on the Department's web site www.dcita.gov.au.





Obtaining value from ICT

You have just invested in some computer or communications technology for your organisation—or you are planning to. Have you chosen the right software? Will you outsource or keep it in-house? What are your competitors doing? How will you know if you made the right choices? How can you obtain the most value from your investment?

For many organisations, the use of information and communications technology (ICT) offers the opportunity to realise considerable benefits in terms of productivity and efficiency. However, many organisations do not appreciate that to fully realise these benefits they also need to adopt some complementary management and organisational strategies.

The Australian Government has recently examined these issues in the largest and most comprehensive study of its kind undertaken to date. A survey of over one thousand Australian organisations, from small retailers to large government departments, identified their use of (ICT).

The results were surprisingly straightforward and probably confirm something you already know: it is not the technology alone but the way you use it that matters. Technology is simply a tool and there are proven management strategies that can help get the most value from your investment in ICT.





How are you doing it?

Our survey has firmly demonstrated that—regardless of whether your organisation is large, medium or small, and no matter what industry sector you operate in—achieving value from ICT investment is within your control.

- You need clear, strategic reasons for the investment.
- You need to be knowledgeable about how ICT can best serve your organisation.
- You need clear, formal arrangements in place with ICT suppliers.
- You need to be patient and persistent in realising ICT benefits.
- You need to expect, and be positive about, organisational change.



These points may seem simple, but they are not always easy to achieve. However, organisations that treat technology as a serious management matter will inevitably gain the most value from their ICT investments.



No matter what size your organisation or which industry you operate in, the way you manage your ICT makes a difference to the competitiveness, productivity and performance of your organisation. These practices apply equally to big spenders as well as to small operators and regardless of the particular hardware or applications you choose. Good management really makes all the difference.

Specifically, the best use of the technology involves doing three things well. According to our survey, the organisations that obtained most value from their technology investments had managers who were:

- ICT-aware;
- persistent; and
- open to organisational change.

When investing in and using technology, managerial choices and behaviours are critically important. More than simply keeping the machines running, good ICT management involves flexibility, constant learning and a sound appreciation of the specific benefits, sometimes unexpected, the chosen technology can bring to your organisation.



Are you ICT-aware?

The best way to make the most of an ICT investment is to have managers who understand and appreciate the benefits that the technology can bring.

ICT-aware organisations invest in technology to gain advantage. They are not merely trying to keep up with competitors or succumbing to pressure from trading partners—instead, they make deliberate decisions to move ahead of the pack.



Our vision is to be a leader amongst all contractors. Management was driving ICT. It was a necessary step if we wanted to be leaders.

Plumbing specialist



ICT-aware managers are knowledgeable about ICT opportunities. They are highly conscious of the potential benefits that ICT can bring to their organisation and take a keen interest in how the technology is implemented. They are aware of how ICT can help their organisation:

- gain competitive advantage;
- take advantage of unplanned opportunities;
- enhance skills;
- meet customer expectations;
- achieve cost reductions; and
- produce increased efficiencies.

The most effective organisations invest in ICT in order to achieve strategic and measurable goals. Investing in ICT for these organisations is not a decision based solely on technical criteria, rather it is viewed more broadly as an important and integral part of how the organisation meets its overall business goals.

The market has become more and more competitive, and we have too. Before, when [retailer] clients rang, they might have a customer with them and need a quote—we'd have to go away and work it out and ring them back, so they might lose a customer while they waited. With the new system in place the quote is instant—no waiting and no need to ring back. And we can quote the wholesale and retail price at the same time.

Jewellery manufacturer





Persistence

Successful use of ICT involves an ongoing cycle of learning and development. The impact of new technologies on organisational practices and procedures is rarely simple or superficial, particularly in the longer term.

There is also often a time lag between the initial investment in ICT and the ability to realise the full benefit of that investment. Time is required to learn the new system and how to use it to advantage. Time is also required to integrate the new system with other processes.



A steering team was the right approach. We developed our own 'super users'. Everybody was represented. They would train in everything to do with the system and would be the first line of support. We still have most in play today. If someone in the team has an issue, they are the first person to go to.

Manufacturer of medical products



Organisations that obtain the most value from their ICT investment acknowledge that staff may initially be resistant to or uncertain about new ICT applications. Effective managers are careful to manage staff responses to the new technology. Key to this is ensuring that staff acquire the necessary ICT skills, which in turn can realise further benefits such as process innovation, better customer service and increased employee flexibility.

ICT rollouts are rarely simple or straightforward and managers have an important role to play in the implementation process. Having a formal and clearly set out contract with your ICT supplier is crucial, reducing the possibility of a misunderstanding arising between the parties about the nature of service or product required.

However, money is not the only investment to be made in ICT—time and staff resources are also necessary. Successful organisations carefully research their ICT needs, adopt a strategy for managing the implementation and allow time for the benefits of the new technology to be realised. Those who are patient yet persistent in pursuing their original strategic goals stand to gain the most value from ICT.

What would we do differently? We would have a tighter contract. We probably paid more than we agreed to because it wasn't really clear what we agreed to. So we would make the contract very clear and overcome different understandings of what was meant to happen.

Bible college





Open to change

Organisational change always accompanies the implementation of ICT. Management of that change is entirely in your hands. Some of the benefits of new technology are discovered sometimes as it is integrated with other systems and processes.

ICT can provide more than just increased efficiency and reduced costs—it can also lead to entirely new ways of doing business.



ICT changed the way a lot of teachers look at what they do in the classroom. The move was from 'talk and chalk' to facilitating new ways of learning—a more team oriented way of learning.

Private school



These changes can support new business plans or improve organisational structures and processes and allow firms to provide new services or products and enter new markets. Those who gain the most value from ICT investment are also the ones who most successfully exploit the inevitable changes and create new opportunities.

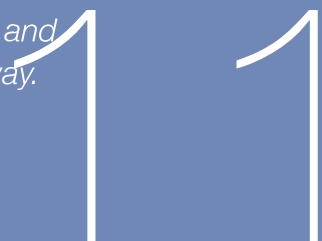
Effective managers recognise (and are quick to take advantage of) the often significant benefits that arise beyond those originally predicted. Investment in ICT can create a cycle of learning and change. Initial use leads to learning and change, which leads to more use, more change, and so on. The best organisations find innovative ways of using these newfound capabilities.

After three years of separate delivery, we rolled out our combined website and access to our secure site. It was seen as very positive, despite an initial lack of will to change to the web for business tools.

Not-for-profit superannuation fund

There has been almost a technological revolution in our stores! As people saw the potential, the project grew and grew, delivering a bigger system than was originally planned. The end result is better customer service, happier staff and improved operations in every way.

Video Rental Chain





Just three things

Remember, those who get the most value from their ICT investments do just three things. They are:

- ICT-aware
- persistent; and
- open to change.

Knowledge of technology alone is not enough. At the end of the day your decision about which hardware to buy or what sort of software to use will only be effective if you and your people are also ICT-aware, persistent in realising ICT benefits and open to change.

Achieving that goal will allow you to reap the many benefits of ICT and to stay ahead of the competition.



What is everyone else doing?



Our survey provided some insight into the way ICT is most commonly used in Australia. Some organisations attributed their very survival to the effective use of ICT. In 1998 some 63 per cent of businesses used a computer, a figure that rose to 83 per cent in 2003. During the same period Internet use rose from just 29 per cent to a whopping 71 per cent.

Email and electronic banking are widely used in Australian organisations of all sizes and in all industries. However, more complex applications such as online selling and business process integration with suppliers and customers are still not commonly used.

Across the board, organisations noted that the most important benefit of ICT was the increase in the quality, quantity and availability of information. Australian firms found that investment in ICT led to:

- better information sharing within the organisation;
- improved business intelligence through a better understanding of customer needs and wants; and
- improved information for managing the organisation.

Important strategic benefits include:

- increased profitability gained through process efficiencies, shorter response times and cost savings; and
- improved competitiveness as a result of skill increases and organisational change.





What is everyone else doing?

Outsourcing

ICT outsourcing is widely practised, both for support and for software development. However, there is much variation in the extent to which outsourcing is used within and between industries. Only by a small number of organisations, almost all of which are very large, have taken up offshore outsourcing for ICT. Those organisations that obtained the most value from ICT had very clear, formal contracts with their technology suppliers. A smile and a handshake were not enough, and the best firms set clear goals relating to ICT delivery.

Those who undertake ICT outsourcing generally regard it as successful. Many firms, however, achieve similarly high value from ICT by using an in-house team to meet their technological needs. Once again, what you do is less important than how you do it and success requires ICT-awareness, persistence and being open to change.

Big and small

It is worth noting that the industries dominated by very large organisations—such as government, communication services and utilities (electricity, gas, water)—reported obtaining the highest value from ICT. Industries where small businesses predominate—accommodation, cafes and restaurants, construction and agriculture—felt they obtained somewhat less value from ICT, although their experiences were still overwhelmingly positive. Such results are unsurprising and reflect the economies of scale that large organisations achieve.

However, the key finding of our survey is that small and medium sized organisations, no matter what industry sector, can maximise the value gained from ICT in just the same way as large organisations—by managing their ICT appropriately.

Importantly, respondents in all industries and of all sizes found that, overall, ICT improved their organisational performance.



Want to know more?



Using quantitative and qualitative research methods, *Achieving Value from ICT: key management strategies* has examined the circumstances and settings in which ICT is implemented and used by small, medium and large organisations across a range of different industry sectors.

The study also analyses the management strategies and organisational forms that accompany and optimise ICT implementation and identified the particular benefits derived from ICT use.

The study is significant as possibly the most comprehensive Australian survey of ICT use and management. One thousand and fifty organisations of varying sizes, from 15 ANZSIC industry categories, took part in a quantitative survey and a further 50 structured interviews provided additional context and detail.

It follows on from the earlier Australian Government report, *Productivity and Organisational Transformation: Optimising Investment in ICT*, which examined the

contribution of ICT to productivity through a series of 18 case studies of exemplar organisations and macro-economic modeling.

The data set from the quantitative survey that informed *Achieving Value from ICT: key management strategies* is also available on the Department's website www.dcita.gov.au to allow researchers and others to undertake further research on the intersection of ICT, organisation and management.

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For more information

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